



MSMR

Medical Surveillance Monthly Report

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Data in the MSMR is provisional, based on reports and other sources of data available to the Medical Surveillance Activity. Notifiable conditions are reported by date of onset (or date of notification when date of onset is absent). Only cases submitted as confirmed are included.

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Annual summary

Overview of Military Respiratory Disease Surveillance

Outbreaks of febrile acute respiratory disease (ARD) have occurred throughout the history of the military, particularly during fall-winter seasons. ARD outbreaks, sometimes massive, have often disrupted training and overwhelmed local medical support at mobilization and basic training centers. In the 1960s, it was demonstrated that adenoviruses, particularly types 4 and 7, were predominant causes of ARD among Army basic trainees. In 1966, a surveillance system was established at Army training centers to monitor the safety, efficacy, and side effects of the then new adenovirus vaccines. For more than thirty years since then, the Army has conducted surveillance of febrile acute respiratory diseases among basic trainees. For this program, a case of ARD is defined as a trainee who is hospitalized with fever (oral temperature $\geq 100.5^{\circ}\text{F}$) and a sign or symptom of acute respiratory tract inflammation.

Figure 1 shows the large decline in ARD rates among Army trainees following 1984, the year the Army began year-round use of adenovirus vaccines. Since then, ARD rates have declined slowly but persistently culminating in the lowest annual rate ever recorded in 1996 (0.19 per 100 trainee-weeks). Figure 2 is an overlay of plots of weekly ARD rates at individual training centers during the last ten years. This display shows that ARD outbreaks have been infrequent, particularly in the last five years. In addition, figure 2 shows that the seasonally adjusted baseline (around which rates of individual centers vary) and magnitudes of fall-winter peaks have slowly but persistently declined over the past decade. In this edition, there is a detailed update of the Army's ARD surveillance experience for calendar years 1995 and 1996.

The US Air Force has conducted Influenza surveillance since 1976 focusing on detecting antigenic drifts of influenza viruses. This effort has contributed to the process of determining the composition of the annual Influenza vaccine. A description of the Air Force's global influenza surveillance project (Project Gargle) and a summary of that project's results for the 1995-6 fall-winter season are also included in this edition.

After more than five decades combined of continuous service, the Army and Air Force respiratory disease surveillance programs continue their important roles to detect emerging or resurgent respiratory disease threats, to document indications for and effects of countermeasures against specific agents, and to document experiences overall and in subgroups to guide and focus future policy, resource, and research initiatives.

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Figure 1. Acute respiratory disease surveillance at Army basic training posts.
Crude weekly hospitalization rates, 1982 – 1996

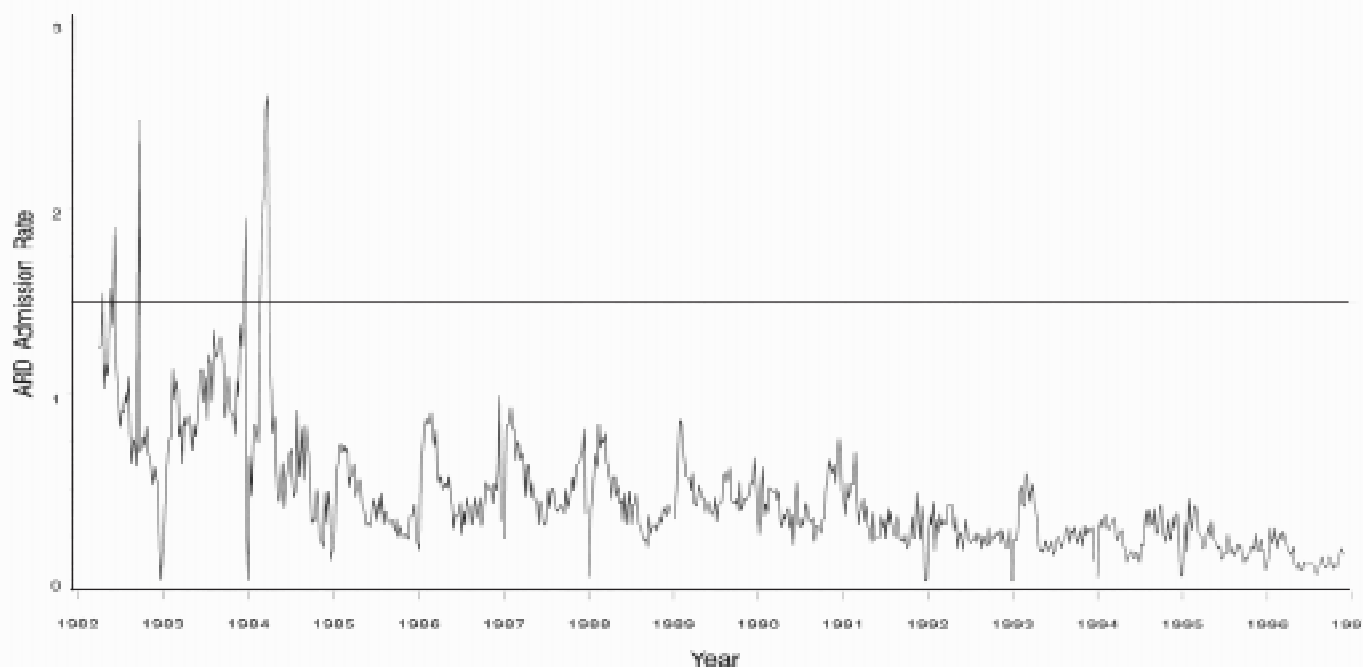


Figure 2. Acute respiratory disease surveillance at Army basic training posts.
Overlay of weekly hospitalization rates, 1986 – 1996

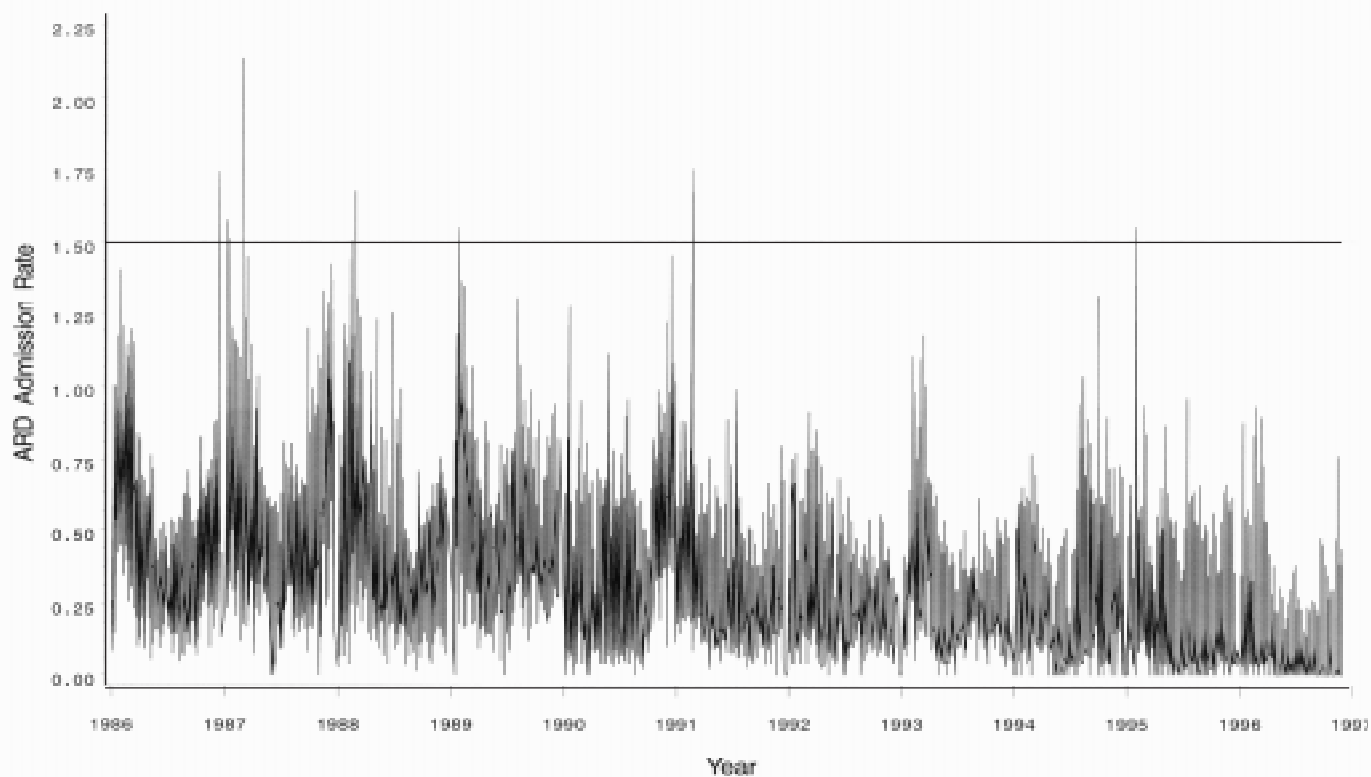


TABLE I. Cases of selected notifiable conditions, United States Army*
November, 1996

Reporting MTF/Post**	Total number of reports submitted Nov-96	Environmental Injuries			Viral Hepatitis			Malaria	Varicella	
		Active Duty		CO intox.				Active Duty	Active Duty	Other Adult
		Heat	Cold							
		Cum. 1996	Cum. 1996	Cum. 1996	A	B	C	Cum. 1996	Cum. 1996	Cum. 1996
NORTH ATLANTIC RMC										
Walter Reed AMC	-	1	-	-	1	1	-	1	5	1
Aberdeen Prov. Ground	7	1	3	-	-	-	-	-	-	-
FT Belvoir, VA	7	1	-	-	1	1	-	-	-	-
FT Bragg, NC	8	18	7	-	1	-	-	3	-	-
FT Drum, NY	29	6	22	-	-	1	-	1	6	-
FT Eustis, VA	-	2	-	-	1	-	-	-	-	1
FT Knox, KY	26	-	2	-	2	2	7	-	-	-
FT Lee, VA	10	-	-	-	-	-	-	-	-	-
FT Meade, MD	11	-	1	-	2	-	1	-	9	1
USMA, West Point, NY	-	-	-	-	-	-	-	-	-	-
CENTRAL RMC										
Fitzsimons AMC	-	-	-	-	-	-	-	1	-	-
GREAT PLAINS RMC										
Brooke AMC	10	-	-	-	-	-	-	1	-	-
FT Carson, CO	37	-	32	-	1	4	-	-	1	-
FT Hood, TX	-	2	1	-	1	3	-	-	6	-
FT Leavenworth, KS	3	-	-	-	-	-	1	-	-	-
FT Leonard Wood, MO	13	1	2	-	1	1	-	-	17	5
FT Polk, LA	-	-	-	-	-	-	-	-	-	-
FT Riley, KS	41	1	-	-	-	-	-	-	-	-
FT Sill, OK	-	4	-	-	4	5	3	-	-	-
Panama	32	3	-	-	4	4	3	-	-	1
SOUTHEAST RMC										
Eisenhower AMC	9	2	-	-	-	2	-	-	2	-
FT Benning, GA	-	8	-	-	-	-	-	-	9	-
FT Campbell, KY	93	3	2	-	3	1	2	-	2	-
FT Jackson, SC	-	-	-	-	-	-	-	-	-	-
FT McClellan, AL	-	-	1	-	-	1	-	-	1	-
FT Rucker, AL	-	4	-	-	-	-	-	-	-	-
FT Stewart, GA	-	-	-	-	-	1	-	-	-	-
SOUTHWEST RMC										
Wm Beaumont AMC	-	-	-	-	1	1	-	-	3	-
FT Huachuca, AZ	-	-	-	-	-	-	-	-	-	-
FT Irwin, CA	10	6	-	-	1	1	-	-	-	-
NORTHWEST RMC										
Madigan AMC	-	-	-	-	-	-	-	-	-	-
FT Wainwright, AK	2	-	81	-	-	-	-	-	-	-
PACIFIC RMC										
Tripler AMC	28	-	1	-	1	1	-	1	-	-
OTHER LOCATIONS										
Europe	37	1	-	-	1	5	2	4	5	1
Korea	-	1	1	-	-	3	-	9	6	-
Total	413	65	156	0	26	38	19	21	72	10

* Based on date of onset.

** Reports are included from main and satellite clinics. Not all sites reporting.

Date of Report: 7-Dec-96

TABLE I. Cases of selected notifiable conditions, United States Army* (continued)
November, 1996

Reporting MTF/Post**	Salmonellosis			Shigella			Campylobacteriosis			Tuberculosis	
	Active Duty	Other		Active Duty	Other		Active Duty	Other		Active Duty	Other
		Adult	Child		Adult	Child		Adult	Child		
	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996
NORTH ATLANTIC RMC											
Walter Reed AMC	2	4	2	-	3	1	5	9	1	-	4
Aberdeen Prov. Ground	-	-	-	-	-	-	-	-	-	-	-
FT Belvoir, VA	2	3	8	5	7	12	2	3	2	-	-
FT Bragg, NC	5	4	23	10	6	28	5	2	1	-	-
FT Drum, NY	2	-	-	-	-	-	-	-	-	-	-
FT Eustis, VA	-	2	3	-	2	3	-	1	4	-	-
FT Knox, KY	-	1	1	-	-	-	-	-	-	-	-
FT Lee, VA	-	-	-	-	-	-	-	-	-	-	-
FT Meade, MD	-	6	5	2	1	1	-	-	-	-	2
USMA, West Point, NY	-	-	-	-	-	-	-	-	-	-	-
CENTRAL RMC											
Fitzsimons AMC	-	-	-	-	1	-	-	-	-	-	-
GREAT PLAINS RMC											
Brooke AMC	-	-	-	-	-	-	-	-	-	-	1
FT Carson, CO	1	-	2	1	-	-	1	-	1	-	-
FT Hood, TX	-	-	-	-	-	-	-	-	-	-	-
FT Leavenworth, KS	-	-	-	1	-	-	1	1	-	-	1
FT Leonard Wood, MO	-	-	4	-	-	-	-	-	-	-	-
FT Polk, LA	-	-	-	-	-	-	-	-	-	-	-
FT Riley, KS	-	-	-	-	-	-	-	-	-	-	-
FT Sill, OK	-	-	-	-	-	-	-	-	-	-	-
Panama	1	2	21	3	1	8	2	6	20	-	2
SOUTHEAST RMC											
Eisenhower AMC	1	-	-	-	-	1	-	-	-	-	1
FT Benning, GA	-	-	-	-	-	-	-	-	-	-	-
FT Campbell, KY	1	-	-	-	1	2	4	4	2	-	1
FT Jackson, SC	-	-	1	-	-	-	-	-	-	1	1
FT McClellan, AL	-	-	-	-	1	-	-	-	-	-	-
FT Rucker, AL	-	-	-	-	-	-	-	-	-	-	-
FT Stewart, GA	1	-	1	-	-	-	-	-	-	-	-
SOUTHWEST RMC											
Wm Beaumont AMC	1	1	4	-	-	-	-	-	-	-	-
FT Huachuca, AZ	-	-	-	-	-	-	-	-	-	-	-
FT Irwin, CA	-	-	-	-	-	-	-	-	-	-	-
NORTHWEST RMC											
Madigan AMC	-	-	-	-	-	-	-	-	-	-	-
FT Wainwright, AK	-	-	-	-	-	-	1	-	-	-	-
PACIFIC RMC											
Tripler AMC	1	-	3	2	-	-	8	7	7	-	2
OTHER LOCATIONS											
Europe	13	11	16	-	-	-	4	7	3	4	4
Korea	-	1	-	-	-	-	-	-	-	3	2
Total	31	35	94	24	23	56	33	40	41	8	21

* Based on date of onset.

** Reports are included from main and satellite clinics. Not all sites reporting.

Date of Report: 7-Dec-96

**TABLE II. Cases of notifiable sexually transmitted diseases, United States Army
November, 1996**

Reporting MTF/Post*	Chlamydia		Urethritis non-spec.		Gonorrhea		Herpes Simplex		Syphilis Prim/Sec		Syphilis Latent		Other STDs**	
	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996
NORTH ATLANTIC RMC														
Walter Reed AMC	-	73	-	31	-	37	-	47	-	2	-	1	-	2
Aberdeen Prov. Ground	3	18	-	17	-	14	-	3	-	-	-	-	-	-
FT Belvoir, VA	2	51	-	1	-	14	-	2	-	-	-	-	-	-
FT Bragg, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Drum, NY	3	64	1	20	4	62	-	15	-	-	-	-	-	1
FT Eustis, VA	-	70	-	-	-	22	-	-	-	-	-	-	-	-
FT Knox, KY	-	117	-	-	-	57	-	53	-	-	-	3	-	-
FT Lee, VA	8	84	-	1	1	39	-	2	-	-	-	-	-	-
FT Meade, MD	1	36	5	32	1	6	1	22	-	1	-	-	-	-
USMA, West Point, NY	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CENTRAL RMC														
Fitzsimons AMC	-	1	-	-	-	-	-	-	-	-	-	1	-	-
GREAT PLAINS RMC														
Brooke AMC	-	9	-	-	-	1	-	-	-	-	-	-	-	-
FT Carson, CO	-	249	-	254	-	85	-	29	-	1	-	1	-	-
FT Hood, TX	-	231	-	81	-	75	-	30	-	2	-	-	-	2
FT Leavenworth, KS	1	17	-	-	-	7	-	3	-	-	-	-	-	-
FT Leonard Wood, MO	8	82	-	36	-	23	-	2	-	-	-	-	-	-
FT Polk, LA	-	23	-	-	-	12	-	2	-	-	-	-	-	-
FT Riley, KS	-	109	-	-	-	28	-	2	-	-	-	-	-	1
FT Sill, OK	-	106	-	33	-	58	-	15	-	-	-	-	-	7
Panama	-	89	-	-	-	5	-	9	-	-	-	-	-	11
SOUTHEAST RMC														
Eisenhower AMC	-	132	-	1	-	47	-	68	-	2	-	-	-	1
FT Benning, GA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Campbell, KY	37	400	-	-	10	139	-	25	-	3	-	-	-	2
FT Jackson, SC	-	278	-	-	-	15	-	11	-	-	-	-	-	3
FT McClellan, AL	-	19	-	-	-	15	-	-	-	1	-	-	-	-
FT Rucker, AL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Stewart, GA	-	14	-	24	-	11	-	7	-	1	-	-	-	2
SOUTHWEST RMC														
Wm Beaumont AMC	-	180	-	-	-	20	-	62	-	-	-	2	-	-
FT Huachuca, AZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Irwin, CA	1	22	-	-	-	11	-	2	-	-	-	1	-	-
NORTHWEST RMC														
Madiqan AMC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Wainwright, AK	-	23	-	-	-	2	-	3	-	-	-	-	-	-
PACIFIC RMC														
Tripler AMC	13	180	-	-	7	42	5	73	-	-	-	2	-	-
OTHER LOCATIONS														
Europe	-	125	-	6	-	49	-	11	-	-	-	-	-	2
Korea	-	13	-	-	-	6	-	5	-	-	-	-	-	3
Total	77	2815	6	537	23	902	6	503	0	13	0	11	0	37

* Reports are included from main and satellite clinics. Not all sites reporting.

Date of Report: 7-Dec-96

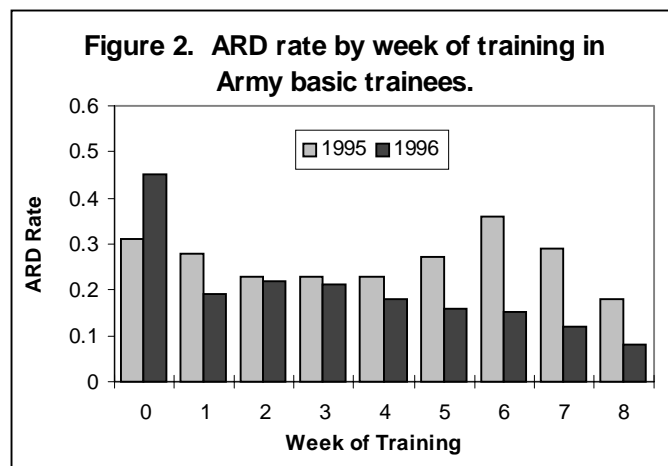
** Other STDs: (a) Chancroid (b) Granuloma Inguinale (c) Lymphogranuloma Venereum (d) Syphilis unspec. (e) Syph, tertiary (f) Syph, congenital

Acute Respiratory Disease (ARD) Surveillance Among Army Basic Trainees, 1995 - 1996

Background: For more than thirty years¹, the Army has conducted surveillance of febrile acute respiratory diseases among initial entry ("basic") trainees. A recent report² summarized the Army's ARD surveillance experience during the ten year period 1985 to 1994. During that period, the overall ARD rate was 0.45 hospitalizations per 100 trainees per week. A large incremental decline in ARD rates occurred in 1984, the year the Army began year-round use of adenovirus vaccines. Rates declined slowly but persistently over the next ten years. This report updates surveillance experience for calendar years 1995 and 1996.

ARD, general: In 1996 (through November), there were 1,346 ARD hospitalizations among Army trainees who were in the first eight weeks of basic military training. The overall ARD rate in 1996 (0.19 per 100 trainee-weeks) was the lowest ever recorded (figure 1). The overall rate in 1996 was approximately 30% lower than that in 1995.

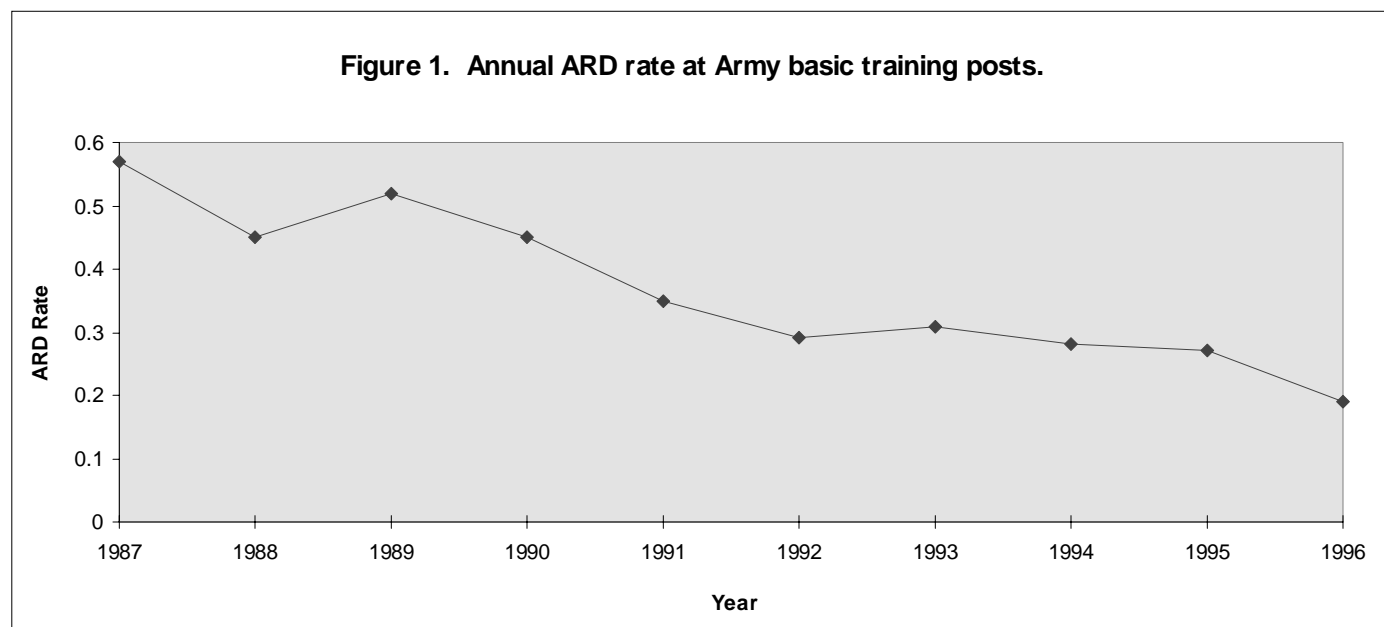
Figure 2 shows week of training-specific ARD rates for 1996 and 1995. In 1996, ARD rates were higher only for trainees in "week 0" (e.g., reception and initial processing). For all subsequent weeks of training, ARD rates in 1996 were lower than those in 1995. In 1996 in contrast to 1995, ARD



rates gradually but persistently declined as training progressed. These data suggest that trainees were more likely in 1996 than in 1995 to arrive at basic training with an incubating or symptomatic febrile respiratory illness, but in 1996, there was not significant propagation of virulent respiratory agents throughout the training cycle.

ARD, by training center: In 1996, ARD rates at all training centers were lower than the overall rate of the previous decade. During the year, there were no widespread outbreaks of febrile ARD at Army training centers. Each of the Army's six

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Project Gargle: U S Air Force Influenza Surveillance Program Summary 1995-1996

Introduction

The USAF has participated in global influenza surveillance since 1976 in a program called Project Gargle. The program uses sentinel bases to test throat cultures of potentially infected individuals. This detects antigenic drifts of influenza viruses and helps to predict which viral strains will appear during the next "flu" season. The Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention (CDC) uses this information to make recommendations for the subsequent year influenza vaccine formulation. It must be emphasized that Project Gargle is a sentinel program and therefore does not provide influenza infection rates.

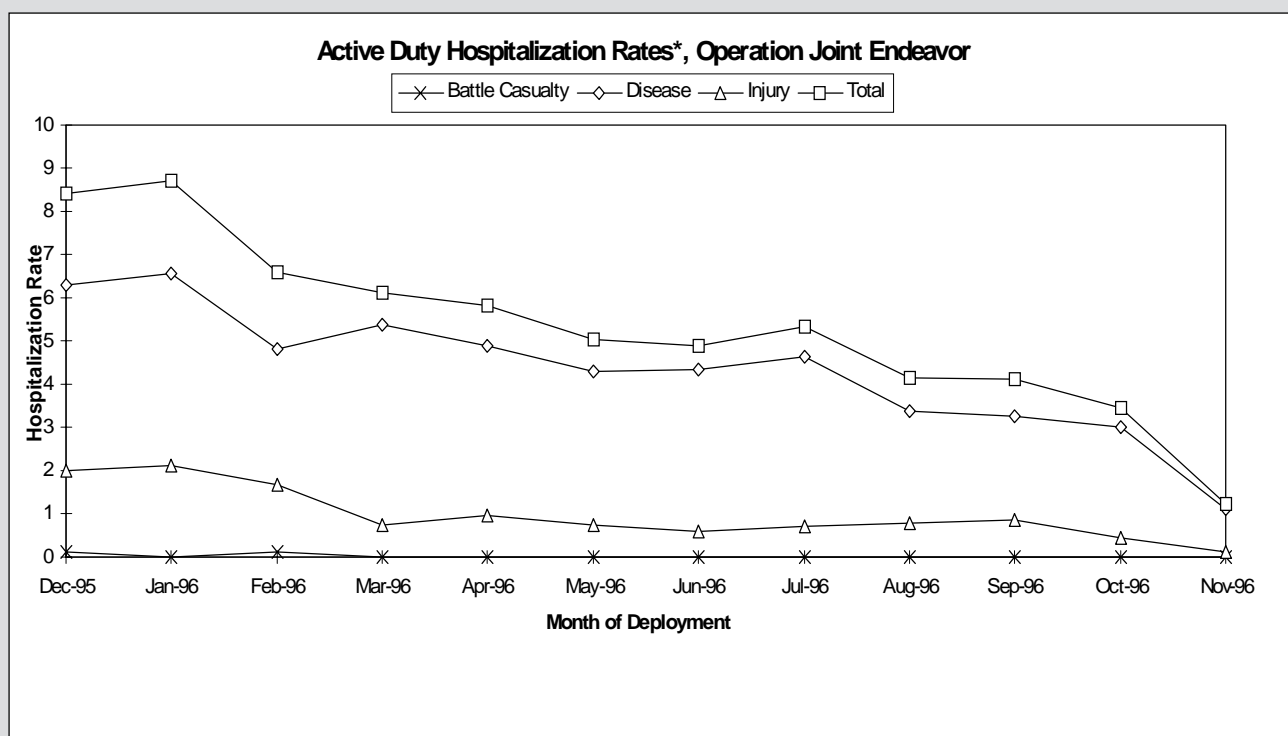
Methods

Fourteen sentinel bases (Andersen AB, Guam; Elmendorf AFB AK; Incirlik AB, Turkey; Kadena AB, Japan; Keesler AFB MS; Lackland AFB TX; Lakenheath AB, United Kingdom; McGuire AFB NJ; Osan AB, Korea; Ramstein AB, Germany; Sheppard AFB TX; Travis AFB CA; USAF Academy CO; and Yokota AB, Japan) submit throat cultures. These installations are asked to submit at least six weekly throat swab samples for viral isolation and identification throughout the year.

Throat swabs are obtained from patients who meet the case definition for influenza-like illness (temperature at or above 100°F and sore throat or cough). Special viral transport media are provided

Continued on page 11

Surveillance Trends, Bosnia**



** Note: Due to the length of the deployment, monthly rates will now be graphed instead of weekly rates.

*Bosnia Update***TABLE III. Active Duty Hospitalization Rates*, Operation Joint Endeavor, 11Dec95 - 7Dec96**

ICD-9 Category	Males							Females							All
	< 20	20-24	25-29	30-34	35-39	>= 40	Total M	< 20	20-24	25-29	30-34	35-39	>= 40	Total F	
Infectious and Parasitic Diseases	16.4	4.4	3.2	3.6	2.1	1.0	3.5	10.9	4.0	5.8	8.8	0.0	0.0	4.5	3.6
Neoplasms	2.1	0.3	0.4	0.4	0.7	1.0	0.5	10.9	2.0	0.0	0.0	2.4	0.0	1.2	0.6
Endocrine, Nutritional, and Metabolic Disease and Immunity Disorders	2.1	0.3	0.7	0.4	0.3	1.4	0.6	0.0	1.0	0.0	7.0	0.0	0.0	1.5	0.7
Diseases of the Blood and Blood-Forming Organs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mental Disorders	6.2	3.6	2.4	1.3	1.0	1.7	2.4	0.0	5.0	7.0	0.0	4.8	2.6	4.2	2.6
Diseases of the Nervous System and Sense Organs	8.2	2.7	3.0	1.1	3.5	1.0	2.5	0.0	3.0	7.0	7.0	4.8	0.0	4.5	2.7
Diseases of the Circulatory System	0.0	1.3	2.0	4.0	4.9	3.1	2.6	0.0	0.0	1.2	0.0	4.8	2.6	1.2	2.4
Diseases of the Respiratory System	0.0	3.9	2.9	3.4	2.1	2.4	3.1	0.0	11.0	4.6	3.5	4.8	2.6	6.0	3.4
Diseases of the Digestive System	14.4	10.4	7.5	6.5	4.2	4.1	7.5	43.5	11.0	9.3	3.5	9.6	2.6	9.0	7.7
Diseases of the Genitourinary System	4.1	2.7	4.2	4.5	2.8	3.7	3.6	0.0	31.1	16.2	5.3	7.2	7.8	16.3	5.1
Complications of Pregnancy, Childbirth, and the Puerperium**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.2	1.8	0.0	0.0	1.5	0.2
Diseases of the Skin and Subcutaneous Tissue	6.2	3.1	1.1	1.8	1.0	0.7	1.9	0.0	1.0	0.0	3.5	2.4	0.0	1.2	1.8
Diseases of Musculoskeletal System and Connective Tissue	6.2	5.5	6.5	6.3	3.1	3.4	5.4	0.0	5.0	3.5	0.0	12.0	7.8	4.8	5.3
Congenital Abnormalities	2.1	0.4	0.4	0.2	0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Symptoms, Signs, and ill-Defined Conditions	6.2	7.3	6.3	6.7	4.9	3.7	6.2	76.1	30.1	10.4	14.1	7.2	5.2	17.8	7.5
Injury and Poisoning	12.3	15.0	10.8	10.1	7.0	3.4	10.6	32.6	23.0	5.8	5.3	9.6	0.0	11.4	10.7
All Hospitalizations	86.3	60.9	51.4	50.3	38.0	30.6	50.7	174.0	130.2	71.8	59.8	69.7	31.2	85.2	54.7

* Rates are calculated per 1000 soldiers per year based on cumulative person time.

** Includes normal delivery

Continued from page 3

training centers had lower ARD rates in 1996 compared to 1995 (figure 3).

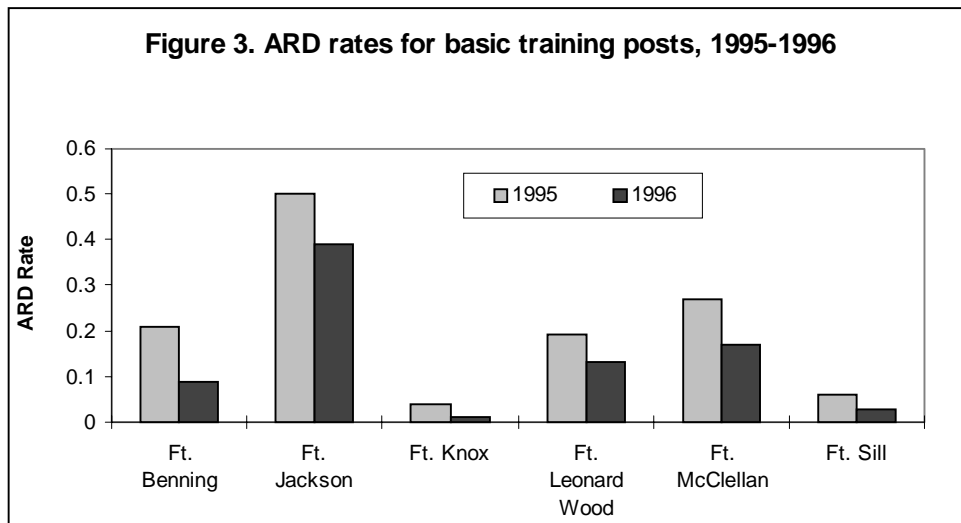
ARD, by gender: ARD rates were lower in 1996 compared to 1995 among both males and females (figure 4). However, rates were higher among females compared to males overall and at each center with trainees of both genders (data not shown).

Overall, group A beta hemolytic streptococcus: In 1996, 86 (8.0%) of 1,071 throat cultures of basic trainees with febrile acute respiratory illnesses were positive for group A beta hemolytic streptococcus. The 1996 streptococcal recovery rate slightly exceeded that in 1995 (6.3%) but was significantly lower than rates documented during the most recent period of streptococcal disease resurgence (1985-1991)². In 1996, there were no significant outbreaks of ARD associated with group A beta hemolytic streptococcus. The low streptococcal recovery rates in recent years undoubtedly reflect the effects of routine uses of benzathine penicillin chemoprophylaxis at selected training centers².

Summary: There were unprecedented low rates of ARD at Army training centers during 1996. As a result, acute respiratory illnesses were not significant causes of morbidity or major obstacles

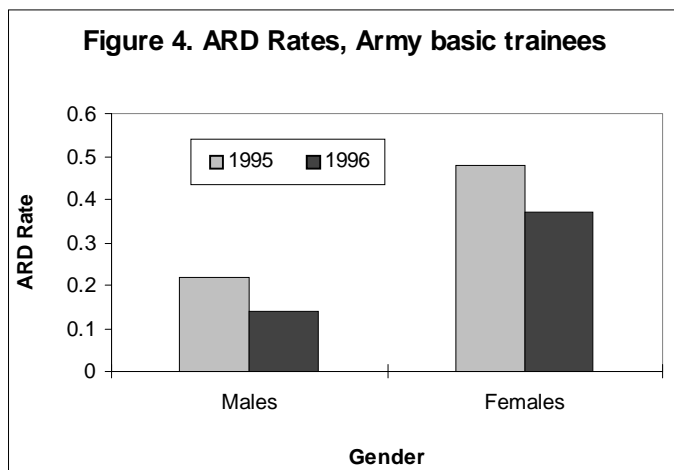
to the orderly and efficient conduct of initial military training. The historically low rates in 1996 represent the continuation of a long, persistent decline that began more than a decade ago. Year round use of influenza and adenovirus vaccines and the selective use of benzathine penicillin chemoprophylaxis³ undoubtedly contributed significantly to the recent successes of Army ARD control efforts.

Figure 3. ARD rates for basic training posts, 1995-1996



The Army's ARD surveillance system which has operated continuously for more than 30 years¹ will continue its critical role in the face of the imminent disruption in the availability of adenovirus vaccines^{4,5}. Specifically, the surveillance system will be relied on to detect emerging or resurgent respiratory disease threats across training centers and to document indications for and effects of countermeasures against specific respiratory agents.

Figure 4. ARD Rates, Army basic trainees



References

1. Dudding BA, Top FH, Winter PE, Buescher EL, Lamson TH, Leibovitz A. Acute respiratory disease in military trainees: the adenovirus surveillance program, 1966-1971. *Am JEpid.* 1973;97:187-98.
2. Brundage JF, Gunzenhauser JD, Longfield JN, Rubertone MV, Ludwig SL, Rubin FA, Kaplan EL. Epidemiology and control of acute respiratory diseases with emphasis on group A beta-hemolytic streptococcus: a decade of US Army experience. *Pediatrics.* 1996;97:964-70.
3. Gunzenhauser JD, Brundage JF, McNeil JG, Miller RN. Broad and persistent effects of benzathine penicillin G in the prevention of febrile, acute respiratory disease. *J Inf Dis.* 1992;166:365-73.

Continued from page 8

by the Laboratory Services Branch (AL/AOEL) of the Epidemiologic Research Division. Providers are encouraged to obtain the throat samples as soon as possible during the illness since the number of viral particles in the throat decreases rapidly as the illness progresses. Early sampling increases the likelihood of detection by the laboratory. All military health care beneficiaries from all bases are considered eligible participants provided they meet the case definition.

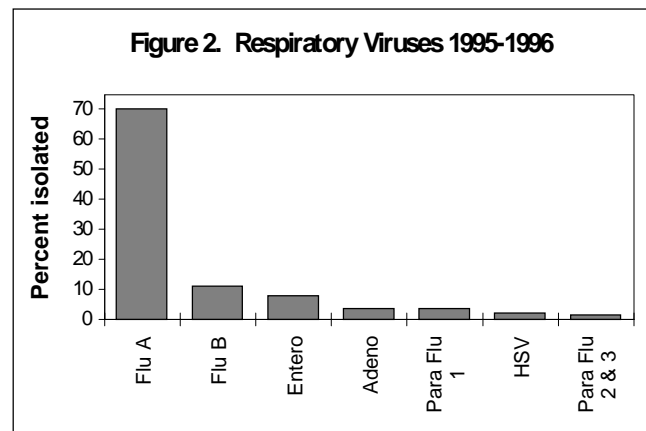
Laboratory Findings

AL/AOEL received 1,646 specimens from the 14 sentinel bases and 11 nonsentinel bases this past year.

Influenza A was isolated at every sentinel base except Keesler and influenza B at all sentinel bases except Incirlik and Kadena. The peak for influenza A was late November through early December, and April for influenza B (figure 1).

Twenty-two percent of the submissions were positive for influenza A. Selected isolates were sent to the CDC for subtyping. CDC characterized 44% as A/Texas/36/91-like(H1N1), which is closely

isolates submitted in November from Andersen AFB were identified as A/Wuhan/359/95-like(H3N2). This same strain had appeared earlier in China.



Since USAF isolates documented the eastward spread of Wuhan strain, the World Health Organization decided to make it the H3N2 component of the 1996-97 vaccine. Further evidence was obtained by subtyping. Of 62 additional specimens subtyped as H3N2, 45% were the A/Wuhan strain. Most of these were submitted late in the "flu" season from Osan, Yokota, and Ramstein.

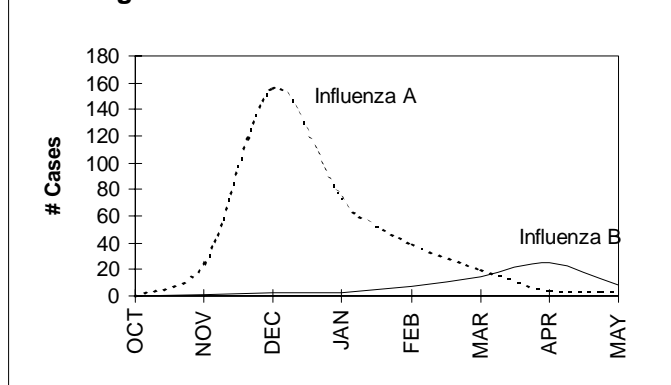
Influenza B was isolated from 3.4% of the submitted specimens. This virus peaked in April as the influenza A isolations were returning to baseline levels. CDC reports that the great majority of the B isolates this season, including those sent by USAF were characterized as B/Beijing/184/93-like. This will remain the B component of the vaccine for the next year.

Summary

Of 1,634 specimens submitted, 512 were positive for respiratory virus. Seventy percent (358) were type A influenza and 11% (56) were type B influenza (figure 2). The remaining isolates were either enterovirus, parainfluenza virus (1, 2, or 3), adenovirus or herpes simplex virus (HSV).

The ages of all positive influenza cases ranged from 1 to 66 years with a mean of 21 and mode of 6 years. Active duty personnel represented

Figure 1. Distribution of Influenza Cases



related antigenically to the H1 component of the 1995-96 vaccine. The remaining 56% of the influenza A isolates were found to be H3N2. Early in the season these were predominantly subtyped as A/Johannesburg/33/94-like(H3N2), which is also very similar to the current vaccine component. Two

47.6% of all positive cases; 76% of these were type A influenza and 24% type B.

Table 1. Immunization rates of all positive Influenza cases by age

Age Group	# Immunized	% Immunized
0 - 9	0	0
10-19	11	23.4
20-29	42	53.1
30-39	26	38.8
40-49	3	25
50-59	2	33
60+	0	0

Questionnaires were sent to the base public health offices to gather further information about the 414 confirmed positive influenza cases. Of the 336 questionnaires returned to AL/AOES, 237 reported immunization status; 36% (84) of positive cases were immunized (table1). Of those with type

A influenza 33% were immunized and of the type B influenza 56.6% were immunized. However, there is no way to determine whether the individuals were vaccinated with the current year vaccine.

Comments

The effectiveness of influenza vaccines varies from year to year depending on such factors as homology between vaccine and circulating strain antigens, age, and health status of populations. Air Force personnel are assigned around the world. Characterization of strains that infect them, particularly in the Far East where new strains tend to originate, provides unique information on which to base decisions regarding vaccine components.

Information submitted by the Epidemiology Services Branch, Armstrong Laboratory, Brooks AFB.

Vaccine Information for the 1996-97 Influenza Season:

The FDA Vaccines and Related Biological Products Advisory Committee has recommended that the 1996-97 trivalent influenza vaccine for the United States contain A/Texas/36/91-like (H1N1), A/Wuhan/359/95-like (H3N2), and B/Beijing/184/93-like hemagglutinin antigens. For both A/Wuhan/359/95-like and B/Beijing/184/93-like antigens, US manufacturers will use the antigenically equivalent strains A/Nanchang/933/95 (H3N2) and B/Harbin/07/94 because of their growth properties. A more detailed discussion of the 1996-97 influenza vaccine strain selection is available in the *Morbidity and Mortality Weekly Report (MMWR)* published April 26, 1996 (Vol. 45/No. 16), <ftp://ftp.cdc.gov/pub/Publications/mmwr/wk/mm4516.pdf>.

Sources of information on Influenza Control Programs:

The full text of the Advisory Committee on Immunization Practices (ACIP) Recommendations for the Prevention and Control of Influenza is published in the *Morbidity and Mortality Weekly Report (MMWR), Recommendations and Reports*, May 3, 1996 (Vol. 45/No. RR-5). To receive a hard copy of this report, call 404-332-4551. At the prompt that asks if you want a current copy of the ACIP recommendations, please leave your name and address, and the document will be mailed to you. You can also receive the report on the worldwide net at <ftp://ftp.cdc.gov/pub/Publications/mmwr/rr/rr4505.pdf>.

ARD Surveillance Update

Legend		
—	ARD Rate	= (ARD cases / Trainees) * 100
■ ■ ■	SASI*	= ARD Rate * Strep Rate**

Ft Benning

Ft Jackson

Ft Knox

Ft Leonard
Wood

Ft McClellan

Ft Sill

Table IV. ARD surveillance rates, submitted by Army TRADOC posts

* Strep/ARD Surveillance Index (SASI)

**Strep Rate= (GABHS(+) / Cultures) * 100

Note: SASI has proven to be a reliable predictor of serious strep-related morbidity, especially acute rheumatic fever.

TABLE IV. Reported heat and cold weather injuries, United States Army, *
June, 1996 - November, 1996

Reporting MTF/Post**	Heat Injuries				Cold Weather Injuries							
	Heat Exhaustion		Heat Stroke		Frostbite		Hypothermia		Immersion		Unspecified	
	M	F	M	F	M	F	M	F	M	F	M	F
NORTH ATLANTIC RMC												
Walter Reed AMC	-	-	1	-	-	-	-	-	-	-	-	-
Aberdeen Prov. Ground	-	-	-	-	-	-	-	-	-	-	-	-
FT Belvoir, VA	2	-	-	-	-	-	-	-	-	-	-	-
FT Bragg, NC	4	1	8	-	-	-	-	-	-	-	-	-
FT Drum, NY	6	-	-	-	2	-	-	-	-	-	-	-
FT Eustis, VA	-	-	-	-	-	-	-	-	-	-	-	-
FT Knox, KY	-	-	-	-	-	-	-	-	-	-	-	-
FT Lee, VA	-	-	-	-	-	-	-	-	-	-	-	-
FT Meade, MD	-	-	-	-	-	-	-	-	-	-	-	-
USMA, West Point, NY	-	-	-	-	-	-	-	-	-	-	-	-
CENTRAL RMC												
Fitzsimons AMC	-	-	-	-	-	-	-	-	-	-	-	-
GREAT PLAINS RMC												
Brooke AMC	-	-	-	-	-	-	-	-	-	-	-	-
FT Carson, CO	-	-	-	-	-	-	-	-	-	-	-	-
FT Hood, TX	1	-	1	-	-	-	-	-	-	-	-	-
FT Leavenworth, KS	-	-	-	-	-	-	-	-	-	-	-	-
FT Leonard Wood, MO	-	-	1	-	-	-	-	-	1	-	-	-
FT Polk, LA	-	-	-	-	-	-	-	-	-	-	-	-
FT Riley, KS	1	-	-	-	-	-	-	-	-	-	-	-
FT Sill, OK	4	-	-	-	-	-	-	-	-	-	-	-
Panama	1	-	-	-	-	-	-	-	-	-	-	-
SOUTHEAST RMC												
Eisenhower AMC	-	-	-	-	-	-	-	-	-	-	-	-
FT Benning, GA	2	-	2	-	1	-	-	-	-	-	-	-
FT Campbell, KY	4	-	1	-	-	-	-	-	-	-	4	-
FT Jackson, SC	-	-	-	-	-	-	-	-	-	-	-	-
FT McClellan, AL	-	-	-	-	-	-	-	-	-	-	-	-
FT Rucker, AL	3	-	-	-	-	-	-	-	-	-	-	-
FT Stewart, GA	-	-	-	-	-	-	-	-	-	-	-	-
SOUTHWEST RMC												
Wm Beaumont AMC	-	-	-	-	-	-	-	-	-	-	-	-
FT Huachuca, AZ	-	-	-	-	-	-	-	-	-	-	-	-
FT Irwin, CA	6	-	-	-	-	-	-	-	-	-	-	-
NORTHWEST RMC												
Madigan AMC	-	-	-	-	-	-	-	-	-	-	-	-
FT Wainwright, AK	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC RMC												
Tripler AMC	-	-	-	-	-	-	-	-	-	-	-	-
OTHER LOCATIONS												
Europe	1	-	-	-	-	-	-	-	-	-	-	-
Korea	1	-	-	-	-	-	-	-	-	-	-	-
Total	36	1	14	0	3	0	0	0	1	0	4	0

* Army active duty cases only.

** Reports are included from parent and daughter clinics. Not all sites reporting.

Date of Report:

7-Dec-96

TABLE V. Active Duty Force Strength by MTF, United States Army, June, 1996*

MTF/Post**	Males							Females							All
	< 20	20-24	25-29	30-34	35-39	>= 40	Total M	< 20	20-24	25-29	30-34	35-39	>= 40	Total F	
NORTH ATLANTIC RMC															
Walter Reed AMC	165	1414	1454	1678	1986	3360	10057	26	413	546	516	498	533	2532	12589
Aberdeen Prov. Ground	335	767	411	478	454	349	2794	82	183	117	62	56	32	532	3326
FT Belvoir, VA	27	358	396	375	361	384	1901	15	110	115	110	87	68	505	2406
FT Bragg, NC	1890	13067	9379	6669	4501	2544	38050	215	1617	1256	694	450	224	4456	42506
FT Drum, NY	578	3804	2177	1381	927	491	9358	73	416	194	128	76	34	921	10279
FT Eustis, VA	300	1345	1049	1008	900	883	5485	127	410	316	189	139	93	1274	6759
FT Knox, KY	703	2222	1455	1461	1310	830	7981	29	169	176	139	113	81	707	8688
FT Lee, VA	350	921	678	620	531	389	3489	298	572	295	206	133	69	1573	5062
FT Meade, MD	69	811	1136	1028	898	1099	5041	25	316	327	257	215	159	1299	6340
USMA, West Point, NY	26	294	327	708	645	627	2627	5	75	72	110	104	70	436	3063
CENTRAL RMC															
Fitzsimons AMC	27	105	176	151	173	201	833	10	56	72	48	49	52	287	1120
GREAT PLAINS RMC															
Brooke AMC	127	750	972	996	874	1025	4744	135	413	424	418	312	324	2026	6770
FT Carson, CO	433	4401	3505	2410	1612	846	13207	63	595	414	226	151	73	1522	14729
FT Hood, TX	2554	13750	9306	5986	4125	2398	38119	376	2189	1509	854	538	276	5742	43861
FT Leavenworth, KS	46	311	222	473	847	618	2517	17	79	70	82	105	53	406	2923
FT Leonard Wood, MO	1189	1855	1012	1040	860	518	6474	358	427	208	171	90	77	1331	7805
FT Polk, LA	332	2406	1611	1227	794	434	6804	72	391	251	134	94	60	1002	7806
FT Riley, KS	635	3543	2222	1429	1005	528	9362	60	406	236	161	118	69	1050	10412
FT Sill, OK	1447	4250	2651	1858	1435	801	12442	67	419	291	192	115	70	1154	13596
Panama	73	952	975	819	680	532	4031	13	186	169	110	84	47	609	4640
SOUTHEAST RMC															
Eisenhower AMC	728	2101	1396	1240	1473	1226	8164	154	624	447	383	302	248	2158	10322
FT Benning, GA	1918	4565	3089	1994	1376	745	13687	101	419	334	206	128	76	1264	14951
FT Campbell, KY	1126	6972	5772	3608	2220	1123	20821	187	941	662	359	216	84	2449	23270
FT Jackson, SC	1416	1162	701	827	663	422	5191	738	637	331	301	164	93	2264	7455
FT McClellan, AL	365	662	471	644	542	417	3101	196	304	173	136	97	56	962	4063
FT Rucker, AL	42	660	1032	648	538	458	3378	28	158	132	82	61	36	497	3875
FT Stewart, GA	1142	6462	4397	2670	1885	1049	17605	167	889	650	326	214	98	2344	19949
SOUTHWEST RMC															
Wm Beaumont AMC	387	2177	1597	1134	1042	996	7333	114	542	326	215	128	165	1490	8823
FT Huachuca, AZ	165	1070	1064	856	669	510	4334	87	349	226	168	138	79	1047	5381
FT Irwin, CA	248	1341	908	764	530	323	4114	17	177	114	83	46	15	452	4566
NORTHWEST RMC															
Madigan AMC	768	5581	4209	3068	2187	1412	17225	129	926	686	387	267	192	2587	19812
FT Wainwright, AK	226	2191	1726	1086	629	337	6195	35	302	205	157	91	56	846	7041
PACIFIC RMC															
Tripler AMC	538	4310	3725	2367	1615	1057	13612	48	724	638	414	323	213	2360	15972
OTHER LOCATIONS															
Europe	1323	12436	11492	8223	6249	4031	43754	297	2458	1985	1319	963	544	7566	51320
Korea	1599	8499	6221	4583	3692	2232	26826	344	1460	1091	729	538	264	4426	31252
Unknown	1090	8753	8526	8654	6240	4111	37381 [§]	250	1320	1099	1067	713	374	4825 [§]	42907 [§]
Total	24387	126268	97440	74161	56468	39306	418037	4958	21672	16157	11139	7916	5057	66901	485639

* Based on duty zip code. Does not account for TDY.

§ Includes unknown age groups and unknown gender.

** Includes any subordinate catchment areas not listed separately.

Source: Defense Manpower Data Center (DMDC)

DEPARTMENT OF THE ARMY
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